

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A target and backing plate assembly for use in magnetron sputtering, comprising a copper or copper alloy target having a back face and a copper alloy backing plate bonded directly to said back face, the copper alloy backing plate being formed from an alloy of which an element forming a majority of the alloy is Cu and being selected from a group consisting of low beryllium copper alloy containing 0.2 to 0.5wt% of Be, Cu-Ni-Si containing 2 to 4wt% of Ni and 0.3 to 0.9wt% of Si, and Cu-Ni-Si-based alloy containing 2 to 4wt% of Ni and 0.3 to 0.9wt% of Si.

Claim 2 (previously presented): The assembly according to claim 1, wherein the backing plate is a Cu-Ni-Si-based alloy backing plate formed from Cu-Ni-Si-based alloy containing 2 to 4wt% of Ni and 0.3 to 0.9wt% of Si, and containing 0.1 to 0.9wt% of Cr or 0.1 to 0.9wt% of Mg.

Claims 3-6 (canceled).

Claim 7 (previously presented): An assembly according to claim 2, wherein the copper alloy backing plate has an electrical conductivity of 35 to 60% (IACS), and 0.2% proof stress of 400 to 850MPa.

Claim 8 (previously presented): An assembly according to claim 7, wherein the backing plate is diffusion bonded directly to the back face of the target.

Claim 9 (previously presented): An assembly according to claim 8, wherein the diffusion bonded assembly is bonded at a diffusion bonding temperature of 175 to 450°C.

Claim 10 (previously presented): An assembly according to claim 1, wherein the copper alloy backing plate has an electrical conductivity of 35 to 60% (IACS), and 0.2% proof stress of 400 to 850MPa.

Claim 11 (previously presented): An assembly according to claim 10, wherein the backing plate is diffusion bonded directly to the back face of the target.

Claim 12 (canceled).

Claim 13 (previously presented): An assembly according to claim 1, wherein the backing plate is diffusion bonded directly to the back face of the target.

Claim 14 (canceled).

Claim 15 (previously presented): A target and backing plate assembly for use in magnetron sputtering, comprising a copper or copper alloy target having a back face and a backing plate diffusion bonded directly to said back face of said target, said backing plate being made of a low beryllium copper alloy containing 0.2 to 0.5wt% of Be.

Claim 16 (previously presented): An assembly according to claim 15, wherein the backing plate has an electrical conductivity of 35 to 60% (IACS) and 0.2% proof stress of 400 to 850MPa.

Claim 17 (currently amended): A target and backing plate assembly for use in magnetron sputtering, comprising a copper or copper alloy target diffusion bonded directly to a copper alloy backing plate, the copper alloy backing plate being made of a Cu-Ni-Si alloy containing 2 to 4wt% of Ni and 0.3 to 0.9wt% of Si and in which Cu forms a majority of the alloy.

Claim 18 (previously presented): An assembly according to claim 17, wherein the Cu-Ni-Si alloy contains 0.1 to 0.9wt% of Cr.

Claim 19 (previously presented): An assembly according to claim 17, wherein the Cu-Ni-Si alloy contains 0.1 to 0.9wt% of Mg.

Claim 20 (previously presented): An assembly according to claim 17, wherein the backing plate has an electrical conductivity of 35 to 60% (IACS), and 0.2% proof stress of 400 to 850MPa.

Claim 21 (new): An assembly according to claim 17, wherein the Cu-Ni-Si alloy contains at least 96.2wt% of Cu.

Claim 22 (new): An assembly according to claim 18, wherein the Cu-Ni-Si alloy consists of 96.2wt% Cu, 3wt% Ni, 0.65wt% Si and 0.15wt% Cr.

Claim 23 (new): An assembly according to claim 19, wherein the Cu-Ni-Si alloy consists of 96.2wt% Cu, 3wt% Ni, 0.65wt% Si and 0.15wt% Mg.

Claim 24 (new): An assembly according to claim 15, wherein the backing plate contains at least 97.6wt% of Cu.

Claim 25 (new): An assembly according to claim 15, wherein the backing plate is made of 97.6wt% Cu, 0.3wt% Be and 2.1wt% in total of Ni and Co.

Claim 26 (new): An assembly according to claim 1, wherein the copper alloy backing plate contains at least 96.2wt% of Cu.